

REMARKS/ARGUMENTS

Claims 1, 2, 4-20, 24 and 25 are pending herein. Claim 1 has been amended hereby as supported at least by paragraph [0108] of the original specification, for example. Applicants respectfully submit that no new matter has been added.

Examiner Robinson is thanked for the courtesies extended to Applicants' undersigned representative during a telephonic interview on November 14, 2011, at which time Examiner Robinson indicated that any claim amendment that changes the scope by reciting features that had not been previously examined would not be entered after final rejection. Accordingly, an RCE is filed herewith.

1. The objection to the specification is noted, but deemed moot in view of the substitute specification paragraph submitted above, whereby the originally filed wording is reinstated. On page 2 of the Office Action, Examiner Robinson indicated that an amendment along those lines would overcome this objection. Accordingly, Applicants respectfully request that the above objection be reconsidered and withdrawn.

2. The §112, second paragraph rejection of claims 2, 5, 6, 24 and 25 is noted, but Applicants respectfully submit that this rejection is incorrect for the reasons explained below.

On page 3 of the Office Action, the PTO asserted that the recitation of "said binder" in claim 2 (and claims 24 and 25 by respective dependency) and claim 5 (and claim 6 by dependency) lack antecedent basis, stating that "there is no binder claimed in claim 1" (see Office Action, page 3, lines 2-3 and 6-7).

Line 11 of marked-up claim 1 submitted in the Amendment filed May 16, 2011, and line 9 of rewritten claim 1 submitted above, recite that the low-refractive index layer comprises a binder. For at least the foregoing reasons, Applicants respectfully request that the above rejection be reconsidered and withdrawn.

3. Claims 1, 4-8, 12, 14-18 and 20 were rejected under §102(b)/§103(a) over WO '189 (based on the US equivalent 2005/0038137; hereinafter Yoshihara). To the extent that the PTO might attempt to assert this rejection against the rewritten claims submitted above, it is respectfully traversed.

The present invention provides an antireflective laminate having not only significantly improved water resistance, alkali resistance, and wetting resistance, but also improved visibility and scratch resistance. Rewritten claim 1 includes the technical feature that the treatment for hydrophobitizing the fine particles is carried out by subjecting said fine particles to graft treatment with polydimethylsiloxane having an OH group on both ends thereof.

Hydrophobitized fine particles obtained by subjecting the fine particles to a graft treatment with polydimethylsiloxane having an OH group on both ends thereof are shown in Examples 2 and 4 of the present specification, for example. Applicants respectfully submit that it is understood, from the results of Examples 2 and 4 that are shown in Tables 1 and 2, that when hydrophobitized fine particles obtained by subjecting fine particles to the graft treatment with polydimethylsiloxane having an OH group on both ends thereof are used, the above-mentioned advantages attributable to the present invention are obtained.

On the other hand, Applicants respectfully submit that Yoshihara merely discloses a coating composition containing inorganic particles that can be made to be

hydrophobic by surface-treating the particles. Applicants respectfully submit, however, that the surface treatment described in Yoshihara is merely a treatment that uses a low-molecular organic compound or a coupling agent (see, e.g., paragraphs [0135]-[0142] of Yoshihara). That is, Applicants respectfully submit that Yoshihara does not disclose or suggest that a treatment for hydrophobitizing fine particles is carried out by subjecting the fine particles to graft treatment with polydimethylsiloxane having an OH group on both ends thereof, as claimed.

Moreover, Applicants respectfully submit that Yoshihara discloses that a polymer having a reactive functional group is grafted on the surface of the inorganic particles (see, e.g., paragraph [0151] of Yoshihara). Applicants respectfully submit, however, that one skilled in the art would readily recognize and easily understand that the graft treatment disclosed in Yoshihara is a method of imparting a polymerizable functional group, i.e., an ionizing radiation-curable group, to the surface of the inorganic particles (see, e.g., paragraph [0151] of Yoshihara). That is, the graft treatment disclosed in Yoshihara is carried out in order to improve adhesion between the inorganic particles and a binder.

In contrast, polydimethylsiloxane having an OH group on both ends thereof, as defined in the pending claims, is not a compound having an ionizing radiation-curable group such as an acrylic group. In the present invention, polydimethylsiloxane having an OH group on both ends thereof is used for hydrophobitizing fine particles to improve water resistance, alkali resistance and wetting resistance. Therefore, Applicants respectfully submit that it would be clear to one skilled in the art that the objective sought and the result obtained by the graft treatment in the present invention is clearly different from that of Yoshihara.

For at least the reasons explained above, Applicants respectfully submit that Yoshihara fails to disclose or suggest each and every feature recited in independent claim 1. Accordingly, Applicants respectfully submit that independent claim 1, and all claims respectively depending therefrom, define patentable subject matter over Yoshihara, and respectfully request that the above rejection be reconsidered and withdrawn.

4. Claims 1, 2, 4-8, 10-12, 14 and 16-20 were rejected under §102(b)/§103(a) over Nakamura; claims 9 and 15 were rejected under §103(a) over Nakamura; claim 13 was rejected under §103(a) over Nakamura in view of JP '600; and claims 24 and 25 were rejected under §103(a) over Nakamura in view of WO '105 and JP '600. To the extent that these rejections may be applied against the amended claims submitted above, they are respectfully traversed.

The advantageous features of rewritten independent claim 1 are discussed above in section 3. Applicants respectfully submit that Nakamura fails to disclose or suggest each and every feature recited in rewritten independent claim 1, and that the secondary references fail to overcome the deficiencies of Nakamura for at least the reasons explained below.

Nakamura discloses a low reflective index layer containing inorganic particles that may be subjected to a surface treatment using a coupling agent. The PTO asserted that Nakamura discloses that the fine particles are subjected to a surface treatment by a coupling agent, and then the binder polymer, such as polyethers and acrylate, is bonded to the surface treating agent. Further, the PTO asserted that this would attach (graft) the polymer binder to the surface of the particles through the coupling agent (see, e.g., Office Action, page 5, lines 15-16). Applicants respectfully submit,

however, that Nakamura does not disclose or suggest a treatment for hydrophobitizing fine particles carried out by subjecting the fine particles to a graft treatment with polydimethylsiloxane having an OH group on both ends thereof, as claimed.

Further, Applicants respectfully submit that, in the present invention, polydimethylsiloxane having an OH group on both ends thereof is used for hydrophobitizing fine particles to improve water resistance, alkali resistance and wetting resistance, as noted above. In contrast, in Nakamura, the binder polymer is combined to the surfaces of the fine particles by the coupling agent in order to improve adhesion between the fine particles and a binder polymer. Applicants respectfully submit that any skilled artisan would readily recognize that the objectives and results of the present invention are clearly different from the disclosure in Nakamura.

JP '600 discloses a coating formed of a low refractive index composition that contains inorganic particles. Applicants respectfully submit, however, that JP '600 does not disclose or suggest that a treatment for hydrophobitizing fine particles is carried out by subjecting the fine particles to graft treatment with polydimethylsiloxane having an OH group on both ends thereof, as claimed.

WO '105 discloses a low refractive index layer containing inorganic particles, such as silica fine particles, which may be subjected to a surface treatment using a coupling agent. Applicants respectfully submit, however, that WO '105 does not disclose or suggest that a treatment for hydrophobitizing fine particles is carried out by subjecting the fine particles to graft treatment with polydimethylsiloxane having an OH group on both ends thereof, as claimed.

In view of the above, Applicants respectfully submit that JP '600 and WO '105 therefore fail to overcome the above-described deficiencies of Nakamura.

For at least the reasons explained above, Applicants respectfully submit that Nakamura, JP '600 and WO '105 fail to disclose or suggest each and every feature recited in independent claim 1. Accordingly, Applicants respectfully submit that independent claim 1, and all claims respectively depending therefrom, define patentable subject matter over the prior art of record, and respectfully request that the above rejections be reconsidered and withdrawn.

If Examiner Robinson believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, she is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

November 23, 2011

Date



Stephen P. Burr
Reg. No. 32,970

Nicole J. Buckner
Reg. No. 51,508

SPB/NB/tlp

BURR & BROWN
P.O. Box 7068
Syracuse, NY 13261-7068

Customer No.: 025191
Telephone: (315) 233-8300
Facsimile: (315) 233-8320